

SEQUENCE LISTING

<110> Donoho, Gregory
Scoville, John
Turner, C. Alexander Jr.
Friedrich, Glenn
Zambrowicz, Brian
Sands, Arthur T.

<120> Novel Human Membrane Proteins and
Polynucleotides Encoding the Same

<130> LEX-0104-USA

<150> US 60/169,427
<151> 1999-12-07

<160> 53

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<212> DNA
<213> Homo sapiens

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35 40 45
Leu Cys Phe Thr Lys Cys Arg Gln Ser Gly Ser Asp Ser Cys Asn Val
50 55 60

Glu Asn Leu Gln Arg Tyr Trp Leu Asn Tyr Glu Ala His Leu Met Lys
 65 70 75 80
 Glu Gly Leu Thr Gln Lys Val Asn Thr Pro Phe Leu Lys Ala Leu Val
 85 90 95
 Gln Asn Leu Ser Thr Asn Thr Ala Glu Asp Phe Tyr Phe Ser Leu Glu
 100 105 110
 Pro Ser Gln Val Pro Arg Gln Val Met Lys Asp Glu Asp Lys Pro Pro
 115 120 125
 Asp Arg Val Arg Leu Pro Lys Ser Leu Phe Arg Ser Leu Pro Gly Asn
 130 135 140
 Arg Ser Val Val Arg Leu Ala Val Thr Ile Leu Asp Ile Gly Pro Gly
 145 150 155 160
 Thr Leu Phe Lys Gly Pro Arg Leu Gly Leu Gly Asp Gly Ser Gly Val
 165 170 175
 Leu Asn Asn Arg Leu Val Gly Leu Ser Val Gly Gln Met His Val Thr
 180 185 190
 Lys Leu Ala Glu Pro Leu Glu Ile Val Phe Ser His Gln Arg Pro Pro
 195 200 205
 Pro Val Ser Pro Leu Leu Arg Pro Gly Ser His Cys Arg Ala Asp Arg
 210 215 220

Thr

225

<210> 3
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<400> 3

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 tcctgcaatg tggaaaactt gcagagatac tggctaaact acgaggccca tctgtatgaag 240
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35 40 45
Leu Cys Phe Thr Lys Cys Arg Gln Ser Gly Ser Asp Ser Cys Asn Val
50 55 60
Glu Asn Leu Gln Arg Tyr Trp Leu Asn Tyr Glu Ala His Leu Met Lys
65 70 75 80
Glu Gly Leu Thr Gln Lys Val Asn Thr Pro Phe Leu Lys Ala Leu Val
85 90 95
Gln Asn Leu Ser Thr Asn Thr Ala Glu Asp Phe Tyr Phe Ser Leu Glu
100 105 110
Pro Ser Gln Val Pro Arg Gln Val Met Lys Asp Glu Asp Lys Pro Pro
115 120 125
Asp Arg Val Arg Leu Pro Lys Ser Leu Phe Arg Ser Leu Pro Gly Asn
130 135 140
Arg Ser Val Val Arg Leu Ala Val Thr Ile Leu Asp Ile Gly Pro Gly
145 150 155 160
Thr Leu Phe Lys Gly Pro Arg Leu Gly Leu Gly Asp Gly Ser Gly Val
165 170 175
Leu Asn Asn Arg Leu Val Gly Leu Ser Val Gly Gln Met His Val Thr
180 185 190
Lys Leu Ala Glu Pro Leu Glu Ile Val Phe Ser His Gln Arg Pro Pro
195 200 205
Pro Asn Met Thr Leu Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr
210 215 220
Thr Gly Asp Trp Ser Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu
225 230 235 240
Gly Thr Val Cys Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu
245 250 255
Arg Pro Thr Leu Asp Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser
260 265 270
Gln Ala Gly Cys Gly Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile
275 280 285
Leu Tyr Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp
290 295 300
Ala Pro Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn
305 310 315 320
Leu Ala Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala
325 330 335
Ala Cys Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala
340 345 350
Phe Thr Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val
355 360 365
Arg Val Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu
370 375 380
Val Gly Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala
385 390 395 400

Asn Ser Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser
 405 410 415
 Leu Glu Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr
 420 425 430
 Ile Thr Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val
 435 440 445
 Val Leu Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr
 450 455 460
 Ala Val Lys Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu
 465 470 475 480
 Gly Leu Ser Ser Leu Ala Ser Trp Val Ser Ile Val His Leu Trp Ser
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 Asn Gln Leu Arg Pro Glu Gly Gln Asn His Val Ile
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 <213> Homo sapiens

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 ttttcgccc tgctcctgag acccacctg gaccagtcca cggcgtcatat cctcacacgc 180
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 aagaaccggaa agaagggtct caccctgtg ggcctctcga gccttgcag ttgggtgtcc 840
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 Gly Cys Gly Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr
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 Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro
 85 90 95
 Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala

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Trp	Met	Gly	Leu	Glu	Ala	Phe	His	Leu	Tyr	Leu	Leu	Ala	Val	Arg	Val
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Phe	Asn	Thr	Tyr	Phe	Gly	His	Tyr	Phe	Leu	Lys	Leu	Ser	Leu	Val	Gly
							165					170			175
Trp	Gly	Leu	Pro	Ala	Leu	Met	Val	Ile	Gly	Thr	Gly	Ser	Ala	Asn	Ser
							180					185			190
Tyr	Gly	Leu	Tyr	Thr	Ile	Arg	Asp	Arg	Glu	Asn	Arg	Thr	Ser	Leu	Glu
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Leu	Cys	Trp	Phe	Arg	Glu	Gly	Thr	Thr	Met	Tyr	Ala	Leu	Tyr	Ile	Thr
							210					215			220
Val	His	Gly	Tyr	Phe	Leu	Ile	Thr	Phe	Leu	Phe	Gly	Met	Val	Val	Leu
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Ala	Leu	Val	Val	Trp	Lys	Ile	Phe	Thr	Leu	Ser	Arg	Ala	Thr	Ala	Val
							245					250			255
Lys	Glu	Arg	Gly	Lys	Asn	Arg	Lys	Lys	Val	Leu	Thr	Leu	Leu	Gly	Leu
							260					265			270
Ser	Ser	Leu	Ala	Ser	Trp	Val	Ser	Ile	Val	His	Leu	Trp	Ser	Asn	Gln
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Leu	Arg	Pro	Glu	Gly	Gln	Asn	His	Val	Ile						
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<211> 1080

<212> DNA

<213> Homo sapiens

<400> 7

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aacatgaccc	tcacctgtgt	attctggat	gtgactaaag	ggaccactgg	agactggct	240
tctgaggct	gctccacgga	ggtcagacct	gaggggaccg	tgtgctgctg	tgaccacctg	300
accttttcg	ccctgctcct	gagacccacc	ttggaccagt	ccacggtgca	tatcctcaca	360
cgcatctccc	aggcgggctg	tgggtctcc	atgatcttcc	tggccttcac	cattattctt	420
tatgccttcc	tgaggcttcc	ccgggagagg	ttcaagtcag	aagatcccc	aaagatccac	480
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gtcttcaaca	cctacttcgg	gcactacttc	ctgaagctga	gcctgggtgg	ctggggcctg	720
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gataggggaga	accgcaccc	tctggagcta	tgctggttcc	gtgaagggac	aaccatgtac	840
gccctctata	tcaccgtcca	cggctacttc	ctcatcacct	tcccttttgg	catgggtggc	900
ctggccctgg	tggtctggaa	gatcttcacc	ctgtccctgt	ctacagcggt	caaggagcgg	960
ggaagaacc	ggaagaaggt	gctcaccctg	ctggccctct	cgagccttc	aaggttgggt	1020
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<211> 359

<212> PRT

<213> Homo sapiens

<400> 8

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Val Gly Leu Ser Val Gly Gln Met His Val Thr Lys Leu Ala Glu Pro
35 40 45
Leu Glu Ile Val Phe Ser His Gln Arg Pro Pro Pro Asn Met Thr Leu
50 55 60
Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr Thr Gly Asp Trp Ser
65 70 75 80
Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu Gly Thr Val Cys Cys
85 90 95
Cys Asp His Leu Thr Phe Phe Ala Leu Leu Arg Pro Thr Leu Asp
100 105 110
Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala Gly Cys Gly
115 120 125
Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr Ala Phe Leu
130 135 140
Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys Ile His
145 150 155 160
Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe Leu Val
165 170 175
Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp Ala Arg
180 185 190
Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp Met Gly
195 200 205
Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe Asn Thr
210 215 220
Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp Gly Leu
225 230 235 240
Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr Gly Leu
245 250 255
Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu Cys Trp
260 265 270
Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly
275 280 285
Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala Leu Val
290 295 300
Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg
305 310 315 320
Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu Ser Ser Leu
325 330 335
Ala Ser Trp Val Ser Ile Val His Leu Trp Ser Asn Gln Leu Arg Pro
340 345 350
Glu Gly Gln Asn His Val Ile
355

<210> 9

<211> 702

<212> DNA

<213> Homo sapiens

<400> 9

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60

120

DRAFT 2007/06/09

ctgttcctcc tgaatctggc cttctggc aatgtgggaa gtggctcaa ggggtctgat	180
gctgcctgct gggccgggg ggctgtctc cactacttc tgctctgtc cttcacctgg	240
atgggccttg aagccttcca cctctacccg ctcgctgtca gggcttcaa cacctacttc	300
gggcactact tcctgaagct gagcctggtg ggctggggcc tgccccct gatggtcata	360
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cacggctact tcctcatcac cttcctctt ggcattgtgg tcctggccct ggtggctgg	540
aagatcttca ccctgtcccg tgctacagcg gtcaaggagc gggggaaagaa ccgaaagaag	600
gtgctcaccc tgctggccct ctcgagcctt gcaagttggg tgcacatcgat ccatctctgg	660
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<211> 233

<212> PRT

<213> Homo sapiens

<400> 10

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Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe	
35 40 45	
Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp	
50 55 60	
Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp	
65 70 75 80	
Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe	
85 90 95	
Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp	
100 105 110	
Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr	
115 120 125	
Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu	
130 135 140	
Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val	
145 150 155 160	
His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala	
165 170 175	
Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys	
180 185 190	
Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu Ser	
195 200 205	
Ser Leu Ala Ser Trp Val Ser Ile Val His Leu Trp Ser Asn Gln Leu	
210 215 220	
Arg Pro Glu Gly Gln Asn His Val Ile	
225 230	

<210> 11

<211> 489

<212> DNA

<213> Homo sapiens

<400> 11

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accactccca	gtcccaccac	agctgccccc	tcctccagat	gctggtccg	tgaagggaca	240
accatgtacg	ccctctatat	caccgtccac	ggctacttcc	tcatcacctt	cctctttggc	300
atggtggtcc	tggccctgg	ggtctggaag	atcttcaccc	tgtccctgtc	tacagcggtc	360
aaggagcggg	ggaagaaccg	gaagaagggt	ctcacccctgc	tgggcctctc	gagccttgca	420
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gtgatatga						489

<210> 12

<211> 162

<212> PRT

<213> Homo sapiens

<400> 12

Met	Gly	Gln	Met	Lys	His	Val	Phe	Glu	Val	Thr	Leu	Ala	Leu	Lys	Arg
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His	Gln	Thr	Gly	Ala	Arg	Trp	Arg	Pro	Leu	Pro	Gln	Arg	Glu	Ser	Gln
						20			25				30		
Gly	Leu	Met	Gly	Gly	Asn	Gly	Arg	Gly	Thr	Phe	Thr	Asp	Arg	Lys	Ala
						35			40			45			
Gln	Pro	Gly	Asp	Phe	Leu	Gly	Leu	Leu	Ala	Arg	Gly	Thr	Thr	Pro	Ser
						50			55			60			
Pro	Thr	Thr	Ala	Ala	Pro	Ser	Ser	Arg	Cys	Trp	Phe	Arg	Glu	Gly	Thr
						65			70		75		80		
Thr	Met	Tyr	Ala	Leu	Tyr	Ile	Thr	Val	His	Gly	Tyr	Phe	Leu	Ile	Thr
						85			90			95			
Phe	Leu	Phe	Gly	Met	Val	Val	Leu	Ala	Leu	Val	Val	Trp	Lys	Ile	Phe
						100			105			110			
Thr	Leu	Ser	Arg	Ala	Thr	Ala	Val	Lys	Glu	Arg	Gly	Lys	Asn	Arg	Lys
						115			120			125			
Lys	Val	Leu	Thr	Leu	Leu	Gly	Leu	Ser	Ser	Leu	Ala	Ser	Trp	Val	Ser
						130			135			140			
Ile	Val	His	Leu	Trp	Ser	Asn	Gln	Leu	Arg	Pro	Glu	Gly	Gln	Asn	His
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Val	Ile														

<210> 13

<211> 1515

<212> DNA

<213> Homo sapiens

<400> 13

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tcctgcaatg	tggaaaactt	gcagagatac	tggctaaact	acgaggccca	tctgtatgg	240
gaaggttga	cgcagaaggt	gaacacgcct	ttcctgaagg	ctttggtcca	gaacctcagc	300
accaacactg	cagaagactt	ctatttctct	ctggagccct	ctcaggttcc	gaggcaggtg	360
atgaaggacg	aggacaagcc	ccctgacaga	gtgcgacttc	ccaagagcct	ttttcgatcc	420
ctgccaggca	acaggtctgt	ggtccgctg	gccgtcacca	ttctggacat	tggccagggg	480
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ctgggtgggtt	tgagtgtgg	acaaatgcat	gtcaccaagc	tggctgagcc	tctggagatc	600
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tcccgtgcta	cagcggtaa	ggagcggggg	aagaaccgg	gctcacccctg	ctgggcctct	1440
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<210> 14

<211> 504

<212> PRT

<213> Homo sapiens

<400> 14

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														Cys
				20					25					30
Leu	Gly	Ser	Asn	Asn	Met	Tyr	Asp	Ile	Phe	Asn	Leu	Asn	Asp	Lys
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					35				40					45
Leu	Cys	Phe	Thr	Lys	Cys	Arg	Gln	Ser	Gly	Ser	Asp	Ser	Cys	Asn
														Val
					50				55					60
Glu	Asn	Leu	Gln	Arg	Tyr	Trp	Leu	Asn	Tyr	Glu	Ala	His	Leu	Met
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Glu	Gly	Leu	Thr	Gln	Lys	Val	Asn	Thr	Pro	Phe	Leu	Lys	Ala	Leu
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					85					90				95
Gln	Asn	Leu	Ser	Thr	Asn	Thr	Ala	Glu	Asp	Phe	Tyr	Phe	Ser	Leu
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					100				105					110
Pro	Ser	Gln	Val	Pro	Arg	Gln	Val	Met	Lys	Asp	Glu	Asp	Lys	Pro
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					115				120					125
Asp	Arg	Val	Arg	Leu	Pro	Lys	Ser	Leu	Phe	Arg	Ser	Leu	Pro	Gly
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					130				135					140
Arg	Ser	Val	Val	Arg	Leu	Ala	Val	Thr	Ile	Leu	Asp	Ile	Gly	Pro
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Thr	Leu	Phe	Lys	Gly	Pro	Arg	Leu	Gly	Leu	Gly	Asp	Gly	Ser	Gly
														Val
					165					170				175
Leu	Asn	Asn	Arg	Leu	Val	Gly	Leu	Ser	Val	Gly	Gln	Met	His	Val
														Thr
					180				185					190
Lys	Leu	Ala	Glu	Pro	Leu	Glu	Ile	Val	Phe	Ser	His	Gln	Arg	Pro
														Pro
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Pro	Asn	Met	Thr	Leu	Thr	Cys	Val	Phe	Trp	Asp	Val	Thr	Lys	Gly
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					210				215					220
Thr	Gly	Asp	Trp	Ser	Ser	Glu	Gly	Cys	Ser	Thr	Glu	Val	Arg	Pro
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					225				230					240
Gly	Thr	Val	Cys	Cys	Cys	Asp	His	Leu	Thr	Phe	Phe	Ala	Leu	Leu
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					245					250				255
Arg	Pro	Thr	Leu	Asp	Gln	Ser	Thr	Val	His	Ile	Leu	Thr	Arg	Ile
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					260				265					270
Gln	Ala	Gly	Cys	Gly	Val	Ser	Met	Ile	Phe	Leu	Ala	Phe	Thr	Ile
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					275				280					285

Leu Tyr Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp
 290 295 300
 Ala Pro Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn
 305 310 315 320
 Leu Ala Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala
 325 330 335
 Ala Cys Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala
 340 345 350
 Phe Thr Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val
 355 360 365
 Arg Val Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu
 370 375 380
 Val Gly Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala
 385 390 395 400
 Asn Ser Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser
 405 410 415
 Leu Glu Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr
 420 425 430
 Ile Thr Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val
 435 440 445
 Val Leu Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr
 450 455 460
 Ala Val Lys Glu Arg Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser
 465 470 475 480
 Arg Ala Leu Gln Val Gly Cys Pro Ser Ser Ile Ser Gly Pro Ile Ser
 485 490 495
 Cys Asp Gln Lys Gly Arg Ile Met
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<210> 15

<211> 885

<212> DNA

<213> Homo sapiens

<400> 15

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atctcccagg	cgggctgtgg	ggtctccatg	atttcctgg	cttcaccat	tatttttat	240
gcctttctga	ggctttcccg	ggagaggttc	aagtcaaga	atgccccaaa	gatccacgtg	300
gccctgggtg	gcagcctgtt	cctcctgaat	ctggccttct	tggtaatgt	ggggagtggc	360
tcaaagggtt	ctgatgctgc	ctgctgggccc	cggggggctg	tcttccacta	cttcctgctc	420
tgtgccttca	cctggatggg	ccttgaagcc	ttccacactt	acctgctcgc	tgtcagggtc	480
ttcaacaccc	acttcggca	ctacttcctg	aagctgagcc	tggtggctg	ggccctgccc	540
gccctgtatgg	tcatcggcac	tgggagtggcc	aacagctacg	gcctctacac	catccgtat	600
agggagaacc	gcaccctctt	ggagctatgc	tggttccgtg	aagggacaac	catgtacgcc	660
ctctatataca	ccgtccacgg	ctacttcctc	atcaccttcc	tcttggcat	ggtggtcctg	720
gccctgggtt	tcttggaaat	cttcacccctg	tcccgtgcta	cagcggtaa	ggagcgggggg	780
aagaaccggt	gctcaccctg	ctgggcctct	cgagcctgc	aagttgggtg	tccatcgtcc	840
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<210> 16

<211> 294

<212> PRT

<213> Homo sapiens

<400> 16
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 Asp Trp Ser Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu Gly Thr
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 Val Cys Cys Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu Arg Pro
 35 40 45
 Thr Leu Asp Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala
 50 55 60
 Gly Cys Gly Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr
 65 70 75 80
 Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro
 85 90 95
 Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala
 100 105 110
 Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys
 115 120 125
 Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr
 130 135 140
 Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val
 145 150 155 160
 Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly
 165 170 175
 Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser
 180 185 190
 Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu
 195 200 205
 Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr
 210 215 220
 Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu
 225 230 235 240
 Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val
 245 250 255
 Lys Glu Arg Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser Arg Ala
 260 265 270
 Leu Gln Val Gly Cys Pro Ser Ser Ile Ser Gly Pro Ile Ser Cys Asp
 275 280 285
 Gln Lys Gly Arg Ile Met
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<210> 17
<211> 1068
<212> DNA
<213> *Homo sapien*

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cccgccctga	tggtcatcggt	cactgggagt	gccaacagct	acggcctcta	caccatccgt	780
gatagggaga	accgcacctc	tctggagcta	tgctggttcc	gtgaagggac	aaccatgtac	840
gccctctata	tcaccgtcca	cggctacttc	ctcatcacct	tcctctttgg	catggtggtc	900
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gggaagaacc	ggtgctcacc	ctgctgggccc	tctcgagcct	tgcaagttgg	gtgtccatcg	1020
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<210> 18
<211> 355
<212> PRT
<213> *Homo sapiens*

<400> 18
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 35 40 45
 Leu Glu Ile Val Phe Ser His Gln Arg Pro Pro Pro Asn Met Thr Leu
 50 55 60
 Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr Thr Gly Asp Trp Ser
 65 70 75 80
 Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu Gly Thr Val Cys Cys
 85 90 95
 Cys Asp His Leu Thr Phe Phe Ala Leu Leu Arg Pro Thr Leu Asp
 100 105 110
 Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala Gly Cys Gly
 115 120 125
 Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr Ala Phe Leu
 130 135 140
 Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys Ile His
 145 150 155 160
 Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe Leu Val
 165 170 175
 Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp Ala Arg
 180 185 190
 Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp Met Gly
 195 200 205
 Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe Asn Thr
 210 215 220
 Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp Gly Leu
 225 230 235 240
 Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr Gly Leu
 245 250 255
 Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu Cys Trp
 260 265 270
 Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly
 275 280 285
 Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala Leu Val
 290 295 300
 Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg
 305 310 315 320
 Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser Arg Ala Leu Gln Val

bio2edit 4.0.6.250

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Arg Ile Met			
355			
<210> 19			
<211> 690			
<212> DNA			
<213> Homo sapiens			
<400> 19			
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gctgcctgct	ggcccccgggg	ggctgtcttc	cactacttcc
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tctctggagc	tatgctggtt	ccgtgaaggg	acaaccatgt
cacggctact	tcctcatcac	cttcctcttt	ggcatggtgg
aagatcttca	ccctgtcccg	tgctacagcg	gtcaaggagc
ccctgctggg	cctctcgagc	cttgcaagtt	gggtgtccat
agctgcgacc	agaagggcag	aatcatgtga	
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<210> 20			
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<212> PRT			
<213> Homo sapiens			
<400> 20			
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His Pro Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys			
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Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe			
35	40	45	
Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp			
50	55	60	
Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp			
65	70	75	80
Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe			
85	90	95	
Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp			
100	105	110	
Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr			
115	120	125	
Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu			
130	135	140	
Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val			
145	150	155	160
His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala			
165	170	175	
Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys			
180	185	190	
Glu Arg Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser Arg Ala Leu			

195	200	205
Gln Val Gly Cys Pro Ser Ser Ile Ser Gly Pro Ile Ser Cys Asp Gln		
210	215	220
Lys Gly Arg Ile Met		
225		

<210> 21
<211> 477
<212> DNA
<213> Homo sapiens

<400> 21		
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ggcaccttca cagacagaaa agctcagcca gggacttcc tgggttgct gcccagaggt	180	
accactccca gtcccaccac agctgcccc tcctccagat gctggtccg tgaagggaca	240	
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atgggtggtcc tggccctggt ggtctggaaat ctttcaccc tggccgtgc tacagcggtc	360	
aaggagcggg ggaagaaccg gtgctcaccc tgctgggcctt ctcgaccctt gcaagttggg	420	
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<210> 22
<211> 158
<212> PRT
<213> Homo sapiens

<400> 22		
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Gly Leu Met Gly Gly Asn Gly Arg Gly Thr Phe Thr Asp Arg Lys Ala		
35 40 45		
Gln Pro Gly Asp Phe Leu Gly Leu Leu Ala Arg Gly Thr Thr Pro Ser		
50 55 60		
Pro Thr Thr Ala Ala Pro Ser Ser Arg Cys Trp Phe Arg Glu Gly Thr		
65 70 75 80		
Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly Tyr Phe Leu Ile Thr		
85 90 95		
Phe Leu Phe Gly Met Val Val Leu Ala Leu Val Val Trp Lys Ile Phe		
100 105 110		
Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg Gly Lys Asn Arg Cys		
115 120 125		
Ser Pro Cys Trp Ala Ser Arg Ala Leu Gln Val Gly Cys Pro Ser Ser		
130 135 140		
Ile Ser Gly Pro Ile Ser Cys Asp Gln Lys Gly Arg Ile Met		
145 150 155		

<210> 23
<211> 1566
<212> DNA
<213> Homo sapiens

<400> 23		
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tcctgcaatg	tggaaaactt	gcagagatac	tggctaaact	acgaggccca	tctgatgaag	240
gaagggttga	cgcagaagggt	gaacacgcct	ttcctgaagg	cttgggttca	gaacctcagc	300
accaacactg	cagaagactt	ctatttctct	ctggagccct	ctcaggttcc	gaggcaggtg	360
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ctggtgggtt	tgagtgtggg	acaaatgcat	gtcaccaagc	tggctgagcc	tctggagatc	600
gtcttctctc	accagcgacc	gccccctaac	atgaccctca	cctgtgtatt	ctgggatgtg	660
actaaaggga	ccactggaga	ctggtcttct	gagggctgt	ccacggaggt	cagacctgag	720
gggaccgtgt	gctgctgtga	ccacctgacc	ttttcgccc	tgctcctgag	acccacctt	780
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<210> 24

<211> 521

<212> PRT

<213> Homo sapiens

<400> 24

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Leu Gly Ser Asn Asn Met Tyr Asp Ile Phe Asn Leu Asn Asp Lys Ala
35 40 45
Leu Cys Phe Thr Lys Cys Arg Gln Ser Gly Ser Asp Ser Cys Asn Val
50 55 60
Glu Asn Leu Gln Arg Tyr Trp Leu Asn Tyr Glu Ala His Leu Met Lys
65 70 75 80
Glu Gly Leu Thr Gln Lys Val Asn Thr Pro Phe Leu Lys Ala Leu Val
85 90 95
Gln Asn Leu Ser Thr Asn Thr Ala Glu Asp Phe Tyr Phe Ser Leu Glu
100 105 110
Pro Ser Gln Val Pro Arg Gln Val Met Lys Asp Glu Asp Lys Pro Pro
115 120 125
Asp Arg Val Arg Leu Pro Lys Ser Leu Phe Arg Ser Leu Pro Gly Asn
130 135 140
Arg Ser Val Val Arg Leu Ala Val Thr Ile Leu Asp Ile Gly Pro Gly
145 150 155 160
Thr Leu Phe Lys Gly Pro Arg Leu Gly Leu Gly Asp Gly Ser Gly Val
165 170 175
Leu Asn Asn Arg Leu Val Gly Leu Ser Val Gly Gln Met His Val Thr
180 185 190

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Lys Leu Ala Glu Pro Leu Glu Ile Val Phe Ser His Gln Arg Pro Pro
 195 200 205
 Pro Asn Met Thr Leu Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr
 210 215 220
 Thr Gly Asp Trp Ser Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu
 225 230 235 240
 Gly Thr Val Cys Cys Asp His Leu Thr Phe Phe Ala Leu Leu
 245 250 255
 Arg Pro Thr Leu Asp Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser
 260 265 270
 Gln Ala Gly Cys Gly Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile
 275 280 285
 Leu Tyr Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp
 290 295 300
 Ala Pro Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn
 305 310 315 320
 Leu Ala Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala
 325 330 335
 Ala Cys Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala
 340 345 350
 Phe Thr Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val
 355 360 365
 Arg Val Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu
 370 375 380
 Val Gly Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala
 385 390 395 400
 Asn Ser Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser
 405 410 415
 Leu Glu Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr
 420 425 430
 Ile Thr Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val
 435 440 445
 Val Leu Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr
 450 455 460
 Ala Val Lys Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu
 465 470 475 480
 Gly Leu Ser Ser Leu Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr
 485 490 495
 Pro Leu Gly Leu Ser Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu
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 Gln Gly Glu Ala Pro Ala Pro Gly Arg
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<210> 25

<211> 936

<212> DNA

<213> Homo sapiens

<400> 25

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tttttcgccc	tgctcctgag	acccacctt	gaccagtcca	cggtgcata	cctcacacgc	180
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gcctttctga	ggcttccccg	ggagaggttc	aagtcaaga	atgccccaaa	gatccacgtg	300
gccctgggtg	gcagcctgtt	cctcctgaat	ctggccttct	tggtaatgt	ggggagtggc	360
tcaaagggtt	ctgatgctgc	ctgctgggcc	cggggggctg	tcttccacta	cttcctgctc	420

tgtgccttca	cctggatggg	ccttgaagcc	ttccacctct	acctgctcgc	tgtcagggtc	480
ttcaacacct	acttcgggca	ctacttcctg	aagctgagcc	tggtgggctg	ggccctgccc	540
gccctgatgg	tcatcgac	tgggagtgcc	aacagctacg	gcctctacac	catccgtat	600
agggagaacc	gcacctctct	ggagctatgc	tggttccgtg	aagggacaac	catgtacgcc	660
ctctataatca	ccgtccacgg	ctacttcctc	atcaccttcc	tctttgcac	ggtgttctg	720
gccctgggttgg	tcttgcagat	cttcaccctg	tccctgtcta	cagcggtaa	ggagcgggggg	780
aagaaccgga	agaagggtgct	caccctgctg	ggcctctcg	gcctgggtgg	tgtgacatgg	840
gggttggcca	tcttcaccccc	gttgggcctc	tccaccgtct	acatcttgc	actttcaac	900
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<210> 26

<211> 311

<212> PRT

<213> Homo sapiens

<400> 26

Met	Thr	Leu	Thr	Cys	Val	Phe	Trp	Asp	Val	Thr	Lys	Gly	Thr	Thr	Gly	
1					5				10				15			
Asp	Trp	Ser	Ser	Glu	Gly	Cys	Ser	Thr	Glu	Val	Arg	Pro	Glu	Gly	Thr	
								20	25				30			
Val	Cys	Cys	Cys	Asp	His	Leu	Thr	Phe	Phe	Ala	Leu	Leu	Leu	Arg	Pro	
					35				40				45			
Thr	Leu	Asp	Gln	Ser	Thr	Val	His	Ile	Leu	Thr	Arg	Ile	Ser	Gln	Ala	
					50				55				60			
Gly	Cys	Gly	Val	Ser	Met	Ile	Phe	Leu	Ala	Phe	Thr	Ile	Ile	Leu	Tyr	
					65				70				75			80
Ala	Phe	Leu	Arg	Leu	Ser	Arg	Glu	Arg	Phe	Lys	Ser	Glu	Asp	Ala	Pro	
					85				90				95			
Lys	Ile	His	Val	Ala	Leu	Gly	Gly	Ser	Leu	Phe	Leu	Leu	Asn	Leu	Ala	
					100				105				110			
Phe	Leu	Val	Asn	Val	Gly	Ser	Gly	Ser	Lys	Gly	Ser	Asp	Ala	Ala	Cys	
					115				120				125			
Trp	Ala	Arg	Gly	Ala	Val	Phe	His	Tyr	Phe	Leu	Leu	Cys	Ala	Phe	Thr	
					130				135				140			
Trp	Met	Gly	Leu	Glu	Ala	Phe	His	Leu	Tyr	Leu	Leu	Ala	Val	Arg	Val	
					145				150				155			160
Phe	Asn	Thr	Tyr	Phe	Gly	His	Tyr	Phe	Leu	Lys	Leu	Ser	Leu	Val	Gly	
					165				170				175			
Trp	Gly	Leu	Pro	Ala	Leu	Met	Val	Ile	Gly	Thr	Gly	Ser	Ala	Asn	Ser	
					180				185				190			
Tyr	Gly	Leu	Tyr	Thr	Ile	Arg	Asp	Arg	Glu	Asn	Arg	Thr	Ser	Leu	Glu	
					195				200				205			
Leu	Cys	Trp	Phe	Arg	Glu	Gly	Thr	Thr	Met	Tyr	Ala	Leu	Tyr	Ile	Thr	
					210				215				220			
Val	His	Gly	Tyr	Phe	Leu	Ile	Thr	Phe	Leu	Phe	Gly	Met	Val	Val	Leu	
					225				230				235			240
Ala	Leu	Val	Val	Trp	Lys	Ile	Phe	Thr	Leu	Ser	Arg	Ala	Thr	Ala	Val	
					245				250				255			
Lys	Glu	Arg	Gly	Lys	Asn	Arg	Lys	Lys	Val	Leu	Thr	Leu	Leu	Gly	Leu	
					260				265				270			
Ser	Ser	Leu	Val	Gly	Val	Thr	Trp	Gly	Leu	Ala	Ile	Phe	Thr	Pro	Leu	
					275				280				285			
Gly	Leu	Ser	Thr	Val	Tyr	Ile	Phe	Ala	Leu	Phe	Asn	Ser	Leu	Gln	Gly	
					290				295				300			
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					305				310							

<210> 27
 <211> 1119
 <212> DNA
 <213> Homo sapiens

<400> 27

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catgtcacca	agctggctga	gcctctggag	atcgcttct	ctcaccagcg	accgccccct	180
aacatgaccc	tcacctgtgt	attctggat	gtgactaaag	ggaccactgg	agactggtct	240
tctgagggct	gctccacgga	gttcagacct	gaggggaccg	tgtgctctg	tgaccacctg	300
accttttcg	ccctgctctt	gagaccacc	ttgaccagt	ccacggtgca	tatcctcaca	360
cgcacatctcc	aggccggctg	tgggtctcc	atgatcttcc	tggccttcac	cattattctt	420
tatgccttcc	tgaggcttc	ccgggagagg	ttcaagtcag	aagatcccc	aaagatccac	480
gtggccctgg	gtggcagcct	gttcctctg	aatctggct	tcttggtcaa	tgtggggagt	540
ggctcaaaagg	ggtctgtatgc	tgcctgctgg	gcccgggggg	ctgtctcca	ctacttcctg	600
ctctgtgcct	tcacctggat	gggccttgaa	gccttccacc	tctacctgct	cgctgtcagg	660
gtcttcaaca	cctacttcgg	gcactacttc	ctgaagctga	gcctgggtgg	ctggggcctg	720
cccgccctga	tggtcatcgg	cactgggagt	gccaacagct	acggcctcta	caccatccgt	780
gatagggaga	accgcacctc	tctggagcta	tgctggttcc	gtgaagggac	aaccatgtac	840
gccctctata	tcaccgtcca	cggtacttc	ctcatcacct	tcctctttgg	catggtggtc	900
ctggccctgg	tggtctggaa	gatcttcacc	ctgtcccgtg	ctacagcggt	caaggagcgg	960
ggaagaacc	ggaagaaggt	gctcaccctg	ctgggcctct	cgagcctggt	gggtgtgaca	1020
tgggggttgg	ccatcttcac	cccggtggc	ctctccaccg	tctacatctt	tgacttttc	1080
aactccttgc	aagtgaggc	ccctgcacca	gggaggtga			1119

<210> 28
 <211> 372
 <212> PRT
 <213> Homo sapiens

<400> 28

Met	Ala	Pro	Ser	Ala	Ala	Trp	Pro	Pro	Arg	Ser	Pro	Leu	Ser	Gln	Gly
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		20						25					30		
Val	Gly	Leu	Ser	Val	Gly	Gln	Met	His	Val	Thr	Lys	Leu	Ala	Glu	Pro
							35		40			45			
Leu	Glu	Ile	Val	Phe	Ser	His	Gln	Arg	Pro	Pro	Pro	Asn	Met	Thr	Leu
							50		55			60			
Thr	Cys	Val	Phe	Trp	Asp	Val	Thr	Lys	Gly	Thr	Thr	Gly	Asp	Trp	Ser
							65		70		75		80		
Ser	Glu	Gly	Cys	Ser	Thr	Glu	Val	Arg	Pro	Glu	Gly	Thr	Val	Cys	Cys
							85		90			95			
Cys	Asp	His	Leu	Thr	Phe	Phe	Ala	Leu	Leu	Leu	Arg	Pro	Thr	Leu	Asp
							100		105			110			
Gln	Ser	Thr	Val	His	Ile	Leu	Thr	Arg	Ile	Ser	Gln	Ala	Gly	Cys	Gly
							115		120			125			
Val	Ser	Met	Ile	Phe	Leu	Ala	Phe	Thr	Ile	Ile	Leu	Tyr	Ala	Phe	Leu
							130		135			140			
Arg	Leu	Ser	Arg	Glu	Arg	Phe	Lys	Ser	Glu	Asp	Ala	Pro	Lys	Ile	His
							145		150			155			160
Val	Ala	Leu	Gly	Gly	Ser	Leu	Phe	Leu	Leu	Asn	Leu	Ala	Phe	Leu	Val
							165		170			175			
Asn	Val	Gly	Ser	Gly	Ser	Lys	Gly	Ser	Asp	Ala	Ala	Cys	Trp	Ala	Arg
							180		185			190			

Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp Met Gly
 195 200 205
 Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe Asn Thr
 210 215 220
 Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp Gly Leu
 225 230 235 240
 Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr Gly Leu
 245 250 255
 Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu Cys Trp
 260 265 270
 Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly
 275 280 285
 Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala Leu Val
 290 295 300
 Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg
 305 310 315 320
 Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu Ser Ser Leu
 325 330 335
 Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr Pro Leu Gly Leu Ser
 340 345 350
 Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu Gln Gly Glu Ala Pro
 355 360 365
 Ala Pro Gly Arg
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<210> 29

<211> 741

<212> DNA

<213> Homo sapiens

<400> 29

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 ctgttccctcc tgaatctggc cttcttggc aatgtggga gtggctcaaa ggggtctgat 180
 gctgcctgct gggcccgggg ggctgtctc cactactcc tgctctgtgc cttcacctgg 240
 atgggccttg aagccttcca cctctacctg ctcgctgtca gggtcttcaa cactacttc 300
 gggcactact tcctgaagct gagcctggtg ggctgggccc tgcccgcct gatggtcattc 360
 ggcactggga gtgccaacag ctacggccctc tacaccatcc gtgataggga gaaccgcacc 420
 tctctggagc tatgtgggtt ccgtgaagg acaaccatgt acgccctcta tatcaccgtc 480
 cacggctact tcctcatcac ctgcctcttt ggcatggtgg tcctggccct ggtggtctgg 540
 aagatcttca ccctgtcccg tgctacagcg gtcaaggagc gggggaaagaa ccggaagaag 600
 gtgctcaccc tgctggccct ctcgagccctg gtgggtgtga catgggggtt ggccatcttc 660
 accccgttgg gcctctccac cgtctacatc tttgcacttt tcaactcctt gcaaggtgag 720
 gcccctgac cagggaggtg a 741

<210> 30

<211> 246

<212> PRT

<213> Homo sapiens

<400> 30

Met Gly Ala Pro His Gly Ser Cys Gly Pro Leu Gly Pro Leu Ile Ser
 1 5 10 15
 His Pro Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys
 20 25 30
 Ile His Val Ala Leu Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe

35	40	45
Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp		
50	55	60
Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp		
65	70	75
Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe		
85	90	95
Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp		
100	105	110
Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr		
115	120	125
Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu		
130	135	140
Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val		
145	150	155
His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala		
165	170	175
Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys		
180	185	190
Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu Ser		
195	200	205
Ser Leu Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr Pro Leu Gly		
210	215	220
Leu Ser Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu Gln Gly Glu		
225	230	235
Ala Pro Ala Pro Gly Arg		
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<210> 31

<211> 528

<212> DNA

<213> Homo sapiens

<400> 31

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ggcaccttca	cagacagaaa	agctcagcca	ggggacttcc	tgggtttgct	ggccagaggt	180
accactccca	gtcccaccac	agctgcccc	tcctccagat	gctggttccg	tgaagggaca	240
accatgtacg	ccctctatat	caccgtccac	ggctacttcc	tcatcacctt	cctctttggc	300
atggtgttcc	tggccctgg	ggtctggaaag	atcttcaccc	tgtcccggtc	tacagcggtc	360
aaggagcgg	ggaagaaccg	gaagaaggtg	ctcaccctgc	tggccctctc	gagcctggtg	420
ggtgtgacat	gggggttggc	catttcacc	ccgttggcc	tctccaccgt	ctacatcttt	480
gcactttca	actccttgca	aggtgaggcc	cctgcaccag	ggaggtga		528

<210> 32

<211> 175

<212> PRT

<213> Homo sapiens

<400> 32

Met Gly Gln Met Lys His Val Phe Glu Val Thr Leu Ala Leu Lys Arg			
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His Gln Thr Gly Ala Arg Trp Arg Pro Leu Pro Gln Arg Glu Ser Gln			
20	25	30	
Gly Leu Met Gly Gly Asn Gly Arg Gly Thr Phe Thr Asp Arg Lys Ala			
35	40	45	

Gln Pro Gly Asp Phe Leu Gly Leu Leu Ala Arg Gly Thr Thr Pro Ser
 50 55 60
 Pro Thr Thr Ala Ala Pro Ser Ser Arg Cys Trp Phe Arg Glu Gly Thr
 65 70 75 80
 Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly Tyr Phe Leu Ile Thr
 85 90 95
 Phe Leu Phe Gly Met Val Val Leu Ala Leu Val Val Trp Lys Ile Phe
 100 105 110
 Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg Gly Lys Asn Arg Lys
 115 120 125
 Lys Val Leu Thr Leu Leu Gly Leu Ser Ser Leu Val Gly Val Thr Trp
 130 135 140
 Gly Leu Ala Ile Phe Thr Pro Leu Gly Leu Ser Thr Val Tyr Ile Phe
 145 150 155 160
 Ala Leu Phe Asn Ser Leu Gln Gly Glu Ala Pro Ala Pro Gly Arg
 165 170 175

<210> 33

<211> 1458

<212> DNA

<213> Homo sapiens

<400> 33

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 atcttcaact tgaatgacaa ggctttgtgc ttccaccaagt gcagggcagtc gggcagcgcac 180
 tcctgcaatg tggaaaactt gcagagatac tggctaaact acgaggcccac tctgtatgaag 240
 gaagggttga cgcagaaggt gaacacgcct ttccctgaagg ctttggtcca gaacctcagc 300
 accaaacactg cagaagactt ctatttcctc ctggagccct ctcagggtcc gaggcaggtg 360
 atgaaggacg aggacaagcc ccctgacaga gtgcgacttc ccaagagcct tttcgatcc 420
 ctgccaggca acaggtctgt ggtccgcctt gccgtcacca ttctggacat tggtccaggg 480
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 ctggtggtt tgagtgtggg acaaattgtat gtccaccaagc tggctgagcc tctggagatc 600
 gtcttctctc accagcgacc gcccccttaac atgaccctca cctgtgtatt ctggatgtg 660
 actaaaggaa ccactggaga ctggcttctt gagggctgtt ccacggaggt cagacctgag 720
 gggaccgtgt gctgctgtga ccacctgacc ttttcgcctc tgctcctgag acccacctt 780
 gaccagtcca cggcgtat cctcacacgc atctcccagg cggcgtgtgg ggtctccatg 840
 atcttcctgg ctttccaccat tatttttat gccttctga ggcttcccg ggagagggttc 900
 aagtcaagaat atgccccaaa gatccacgtg gccctgggtt gcagcgtgtt ctcctgaat 960
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 aacagctacg gcctctacac catccgtat agggagaacc gcacctctt gtagctatgc 1260
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 atcaccttcc tcttggcat ggtggcctt gccctgggtt tctggaaat ctccaccctt 1380
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<210> 34

<211> 485

<212> PRT

<213> Homo sapiens

<400> 34

Met Ala Thr Pro Arg Gly Leu Gly Ala Leu Leu Leu Leu Leu

2020-07-24 14:46:24

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Leu	Gly	Ser	Asn	Asn	Met	Tyr	Asp	Ile	Phe	Asn	Leu	Asn	Asp	Lys	Ala
35							40							45	
Leu	Cys	Phe	Thr	Lys	Cys	Arg	Gln	Ser	Gly	Ser	Asp	Ser	Cys	Asn	Val
50							55							60	
Glu	Asn	Leu	Gln	Arg	Tyr	Trp	Leu	Asn	Tyr	Glu	Ala	His	Leu	Met	Lys
65							70							80	
Glu	Gly	Leu	Thr	Gln	Lys	Val	Asn	Thr	Pro	Phe	Leu	Lys	Ala	Leu	Val
85							90							95	
Gln	Asn	Leu	Ser	Thr	Asn	Thr	Ala	Glu	Asp	Phe	Tyr	Phe	Ser	Leu	Glu
100							105							110	
Pro	Ser	Gln	Val	Pro	Arg	Gln	Val	Met	Lys	Asp	Glu	Asp	Lys	Pro	Pro
115							120							125	
Asp	Arg	Val	Arg	Leu	Pro	Lys	Ser	Leu	Phe	Arg	Ser	Leu	Pro	Gly	Asn
130							135							140	
Arg	Ser	Val	Val	Arg	Leu	Ala	Val	Thr	Ile	Leu	Asp	Ile	Gly	Pro	Gly
145							150							160	
Thr	Leu	Phe	Lys	Gly	Pro	Arg	Leu	Gly	Leu	Gly	Asp	Gly	Ser	Gly	Val
165							170							175	
Leu	Asn	Asn	Arg	Leu	Val	Gly	Leu	Ser	Val	Gly	Gln	Met	His	Val	Thr
180							185							190	
Lys	Leu	Ala	Glu	Pro	Leu	Glu	Ile	Val	Phe	Ser	His	Gln	Arg	Pro	Pro
195							200							205	
Pro	Asn	Met	Thr	Leu	Thr	Cys	Val	Phe	Trp	Asp	Val	Thr	Lys	Gly	Thr
210							215							220	
Thr	Gly	Asp	Trp	Ser	Ser	Glu	Gly	Cys	Ser	Thr	Glu	Val	Arg	Pro	Glu
225							230							240	
Gly	Thr	Val	Cys	Cys	Cys	Asp	His	Leu	Thr	Phe	Phe	Ala	Leu	Leu	Leu
245							250							255	
Arg	Pro	Thr	Leu	Asp	Gln	Ser	Thr	Val	His	Ile	Leu	Thr	Arg	Ile	Ser
260							265							270	
Gln	Ala	Gly	Cys	Gly	Val	Ser	Met	Ile	Phe	Leu	Ala	Phe	Thr	Ile	Ile
275							280							285	
Leu	Tyr	Ala	Phe	Leu	Arg	Leu	Ser	Arg	Glu	Arg	Phe	Lys	Ser	Glu	Asp
290							295							300	
Ala	Pro	Lys	Ile	His	Val	Ala	Leu	Gly	Gly	Ser	Leu	Phe	Leu	Leu	Asn
305							310							320	
Leu	Ala	Phe	Leu	Val	Asn	Val	Gly	Ser	Gly	Ser	Lys	Gly	Ser	Asp	Ala
325							330							335	
Ala	Cys	Trp	Ala	Arg	Gly	Ala	Val	Phe	His	Tyr	Phe	Leu	Leu	Cys	Ala
340							345							350	
Phe	Thr	Trp	Met	Gly	Leu	Glu	Ala	Phe	His	Leu	Tyr	Leu	Leu	Ala	Val
355							360							365	
Arg	Val	Phe	Asn	Thr	Tyr	Phe	Gly	His	Tyr	Phe	Leu	Lys	Leu	Ser	Leu
370							375							380	
Val	Gly	Trp	Gly	Leu	Pro	Ala	Leu	Met	Val	Ile	Gly	Thr	Gly	Ser	Ala
385							390							400	
Asn	Ser	Tyr	Gly	Leu	Tyr	Thr	Ile	Arg	Asp	Arg	Glu	Asn	Arg	Thr	Ser
405							410							415	
Leu	Glu	Leu	Cys	Trp	Phe	Arg	Glu	Gly	Thr	Thr	Met	Tyr	Ala	Leu	Tyr
420							425							430	
Ile	Thr	Val	His	Gly	Tyr	Phe	Leu	Ile	Thr	Phe	Leu	Phe	Gly	Met	Val
435							440							445	
Val	Leu	Ala	Leu	Val	Val	Trp	Lys	Ile	Phe	Thr	Leu	Ser	Arg	Ala	Thr

450	455	460
Ala Val Lys Glu Arg Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser		
465	470	475
Arg Ala Trp Trp Val		
485		

<210> 35

<211> 828

<212> DNA

<213> Homo sapiens

<400> 35

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tttttcgccc	tgctcctgag	acccaccttgc	gaccagtcca	cggtgcata	cctcacacgc	180
atctcccagg	cgggctgtgg	ggtctccatg	atcttcctgg	cttcaccat	tattctttat	240
gcctttctga	ggcttccccg	ggagagggtc	aagtcaaga	atgccccaaa	gatccacgtg	300
gccctgggtg	gcagcctgtt	cctcctgaat	ctggccttct	tggtaatgt	ggggagtggc	360
tcaaagggtt	ctgatgctgc	ctgctgggc	cgggggctg	tcttccacta	cttcctgctc	420
tgtgccttca	cctggatggg	ccttgaagcc	tccacactt	acctgctcgc	tgtcagggtc	480
ttcaacacact	acttcgggca	ctacttcctg	aagctgagcc	tggtggctg	ggccctgccc	540
gccctgtatgg	tcatcggcac	tgggagtggc	aacagctacg	gcctctacac	catccgtat	600
agggagaacc	gcacccctct	ggagctatgc	tggtccgtg	aaggacaac	catgtacgccc	660
ctctatatac	ccgtccacgg	ctacttcctc	atcaccttcc	tcttggcat	ggtggccttg	720
gccctgggtgg	tctggaaagat	cttcacccctg	tccctgtcta	cagcgtcaa	ggagcggggg	780
aagaaccgg	gctcaccctg	ctgggcctct	cgagcctggt	gggtgtga		828

<210> 36

<211> 275

<212> PRT

<213> Homo sapiens

<400> 36

Met Thr Leu Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr Thr Gly			
1	5	10	15
Asp Trp Ser Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu Gly Thr			
20	25	30	
Val Cys Cys Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu Arg Pro			
35	40	45	
Thr Leu Asp Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala			
50	55	60	
Gly Cys Gly Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr			
65	70	75	80
Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro			
85	90	95	
Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala			
100	105	110	
Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys			
115	120	125	
Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr			
130	135	140	
Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val			
145	150	155	160
Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly			
165	170	175	
Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser			

180	185	190													
Tyr	Gly	Leu	Tyr	Thr	Ile	Arg	Asp	Arg	Glu	Asn	Arg	Thr	Ser	Leu	Glu
195	195	200	200	205											
Leu	Cys	Trp	Phe	Arg	Glu	Gly	Thr	Thr	Met	Tyr	Ala	Leu	Tyr	Ile	Thr
210	210	215	215	220											
Val	His	Gly	Tyr	Phe	Leu	Ile	Thr	Phe	Leu	Phe	Gly	Met	Val	Val	Leu
225	225	230	230	235	235	240									
Ala	Leu	Val	Val	Trp	Lys	Ile	Phe	Thr	Leu	Ser	Arg	Ala	Thr	Ala	Val
245	245	250	250	255											
Lys	Glu	Arg	Gly	Lys	Asn	Arg	Cys	Ser	Pro	Cys	Trp	Ala	Ser	Arg	Ala
260	260	265	265	270											
Trp	Trp	Val													
275															

<210> 37
<211> 1011
<212> DNA
<213> Homo sapiens

<400> 37

atggccctt	ctgcagcctg	gcctccccga	tctcccttt	cacagggccc	ccggctcgcc	60
ctgggagatg	gcagcggcgt	gttgaacaat	cgccctggtgg	gtttgagtgt	gggacaaatg	120
catgtcacca	agctggctga	gcctctggag	atcgcttct	ctcaccagcg	accgccccct	180
aacatgaccc	tcacctgtgt	attctggat	gtgactaaag	ggaccactgg	agactggct	240
tctgagggct	gctccacgga	ggtcagacct	gaggggaccg	tgtgctgctg	tgaccacctg	300
accttttcg	ccctgctct	gagaccacc	ttgaccagt	ccacggtgca	tatcctcaca	360
cgcacatctccc	aggccccctg	tggggtctcc	atgatcttcc	tggccttac	cattattctt	420
tatgcctttc	tgaggcttcc	ccgggagagg	ttcaagtcag	aagatcccc	aaagatccac	480
gtggccctgg	gtggcagcct	gttcctctg	aatctggct	tcttggtcaa	tgtggggagt	540
ggctcaaagg	ggtctgatgc	tgcctgctgg	gccccggggg	ctgtcttcca	ctacttcctg	600
ctctgtgcct	tcacctggat	gggccttga	gccttccacc	tctacctgct	cgctgtcagg	660
gtcttcaaca	cctacttcgg	gcactacttc	ctgaagctga	gcctggtggg	ctggggcctg	720
ccggccctga	tggtcatcgg	cactggaggt	gccaacagct	acggcctcta	caccatccgt	780
gatagggaga	accgcacctc	tctggagcta	tgctggttcc	gtgaagggac	aaccatgtac	840
ccctctata	tcaccgtcca	cggtacttcc	ctcatcacct	tcctcttgg	catgggtgtc	900
ctggccctgg	tggtctggaa	gatcttacc	ctgtcccgt	ctacagcgt	caaggagcgg	960
ggaaagaacc	ggtgctcacc	ctgctggcc	tctcgagcct	ggtgggtgt	a	1011

<210> 38
<211> 336
<212> PRT
<213> Homo sapiens

<400> 38

Met	Ala	Pro	Ser	Ala	Ala	Trp	Pro	Pro	Arg	Ser	Pro	Leu	Ser	Gln	Gly
1	5	10	10	15											
Pro	Arg	Leu	Gly	Leu	Gly	Asp	Gly	Ser	Gly	Val	Leu	Asn	Asn	Arg	Leu
20	20	25	25	30											
Val	Gly	Leu	Ser	Val	Gly	Gln	Met	His	Val	Thr	Lys	Leu	Ala	Glu	Pro
35	35	40	40	45											
Leu	Glu	Ile	Val	Phe	Ser	His	Gln	Arg	Pro	Pro	Pro	Asn	Met	Thr	Leu
50	50	55	55	60											
Thr	Cys	Val	Phe	Trp	Asp	Val	Thr	Lys	Gly	Thr	Thr	Gly	Asp	Trp	Ser
65	65	70	70	75	75	80									
Ser	Glu	Gly	Cys	Ser	Thr	Glu	Val	Arg	Pro	Glu	Gly	Thr	Val	Cys	Cys
85	85	90	90	95											

Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu Arg Pro Thr Leu Asp
 100 105 110
 Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala Gly Cys Gly
 115 120 125
 Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr Ala Phe Leu
 130 135 140
 Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys Ile His
 145 150 155 160
 Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe Leu Val
 165 170 175
 Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp Ala Arg
 180 185 190
 Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp Met Gly
 195 200 205
 Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe Asn Thr
 210 215 220
 Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp Gly Leu
 225 230 235 240
 Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr Gly Leu
 245 250 255
 Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu Cys Trp
 260 265 270
 Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly
 275 280 285
 Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala Leu Val
 290 295 300
 Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg
 305 310 315 320
 Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser Arg Ala Trp Trp Val
 325 330 335

<210> 39
 <211> 633
 <212> DNA
 <213> Homo sapiens

<400> 39

atggggagctc	cccatgggag	ctgtggccccc	ttggggcctc	ttatttctca	ccccaggctt	60
tcccgggaga	ggttcaagtc	agaagatgcc	ccaaagatcc	acgtggccct	gggtggcagc	120
ctgttcctcc	tgaatctggc	cttcttggc	aatgtggga	gtggctcaaa	ggggctgtat	180
gctgcctgt	ggcccccggg	ggctgtcttc	cactacttcc	tgctctgtgc	cttcacctgg	240
atgggccttg	aagccttcca	cctctacccgt	ctcgctgtca	gggtcttcaa	cacctacttc	300
gggcactact	tcctgaagct	gagcctgggt	ggctggggcc	tgcccgccct	gatggtcatc	360
ggcactggga	gtgccaacag	ctacggccctc	tacaccatcc	gtgataggg	gaaccgcacc	420
tctctggagc	tatgtgggtt	ccgtgaaggg	acaaccatgt	acgcctcta	tatcaccgtc	480
cacggctact	tcctcatcac	cttccctttt	ggcatgggtgg	tcctggccct	ggtggctgg	540
aagatcttca	ccctgtcccg	tgctacagcg	gtcaaggagc	ggggaaagaa	ccgtgtctca	600
ccctgctggg	cctctcgagc	ctgggtgggtg	tga			633

<210> 40
 <211> 210
 <212> PRT
 <213> Homo sapiens

<400> 40

Met Gly Ala Pro His Gly Ser Cys Gly Pro Leu Gly Pro Leu Ile Ser

1	5	10	15
His Pro Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys			
20	25	30	
Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe			
35	40	45	
Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp			
50	55	60	
Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp			
65	70	75	80
Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe			
85	90	95	
Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp			
100	105	110	
Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr			
115	120	125	
Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu			
130	135	140	
Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val			
145	150	155	160
His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala			
165	170	175	
Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys			
180	185	190	
Glu Arg Gly Lys Asn Arg Cys Ser Pro Cys Trp Ala Ser Arg Ala Trp			
195	200	205	
Trp Val			
210			

<210> 41

<211> 420

<212> DNA

<213> Homo sapiens

<400> 41

atggggcaaa	tgaaacatgt	ctttgaggtc	actttggcat	taaagagaca	ccagactgga	60
gccaggtggc	ggccctcccc	acagcgggag	agccaggat	tgatgggtgg	aaatgggaga	120
ggcaccttca	cagacagaaa	agctcagcca	ggggacttcc	tgggttgct	ggccagaggt	180
accactccca	gtcccaccac	agctgcccc	tcctccagat	gctggttccg	tgaaggggaca	240
accatgtacg	ccctctatat	caccgtccac	ggctacttcc	tcatcacctt	cctctttggc	300
atggtggtcc	tggccctgg	ggtctggaa	atcttcaccc	tgtcccggtc	tacagcggtc	360
aaggagcggg	ggaagaaccg	gtgctcaccc	tgctgggcct	ctcgagcctg	gtgggtgtga	420

<210> 42

<211> 139

<212> PRT

<213> Homo sapiens

<400> 42

Met Gly Gln Met Lys His Val Phe Glu Val Thr Leu Ala Leu Lys Arg			
1	5	10	15
His Gln Thr Gly Ala Arg Trp Arg Pro Leu Pro Gln Arg Glu Ser Gln			
20	25	30	
Gly Leu Met Gly Gly Asn Gly Arg Gly Thr Phe Thr Asp Arg Lys Ala			
35	40	45	
Gln Pro Gly Asp Phe Leu Gly Leu Leu Ala Arg Gly Thr Thr Pro Ser			
50	55	60	

Pro	Thr	Thr	Ala	Ala	Pro	Ser	Ser	Arg	Cys	Trp	Phe	Arg	Glu	Gly	Thr
65					70				75						80
Thr	Met	Tyr	Ala	Leu	Tyr	Ile	Thr	Val	His	Gly	Tyr	Phe	Leu	Ile	Thr
					85				90						95
Phe	Leu	Phe	Gly	Met	Val	Val	Leu	Ala	Leu	Val	Val	Trp	Lys	Ile	Phe
				100				105							110
Thr	Leu	Ser	Arg	Ala	Thr	Ala	Val	Lys	Glu	Arg	Gly	Lys	Asn	Arg	Cys
				115				120							125
Ser	Pro	Cys	Trp	Ala	Ser	Arg	Ala	Trp	Trp	Trp	Val				
				130				135							

<210> 43

<211> 1650

<212> DNA

<213> Homo sapiens

<400> 43

atggcgacgc	ccaggggcct	gggggcctg	ctcctgctcc	tcctgctccc	gacctcaggt	60
caggaaaagc	ccaccgaagg	gccaagaaac	acctgcctgg	ggagcaacaa	catgtacgac	120
atcttcaact	tgaatgacaa	ggcttgc	ttcaccaagt	gcaggcagtc	ggcagcgcac	180
tcctgcaatg	tggaaaactt	gcagagatac	tggtctaaact	acgaggccca	tctgatgaag	240
gaagggttga	cgcagaaggt	gaacacgcct	ttcctgaagg	ctttggcca	gaacctcagc	300
accaacactg	cagaagactt	ctatttctct	ctggagccct	ctcaggttcc	gaggcaggtg	360
atgaaggacg	aggacaagcc	ccctgacacaga	gtgcgacttc	ccaagagcct	tttcgatcc	420
ctgccaggca	acaggtctgt	ggtccgcctg	gccgtcacca	ttctggacat	tggtccaggg	480
actctcttca	agggccccc	gctcgccctg	ggagatggca	gcggcgtgtt	gaacaatcgc	540
ctgggtgggt	ttagtgtgg	acaaatgcat	gtcaccaagc	tggctgagcc	tctggagatc	600
gtcttctctc	accagcgacc	gcccccta	atgaccctca	cctgtgtatt	ctggatgtg	660
actaaaggga	ccactggaga	ctggcttct	gagggctgct	ccacggaggt	cagacctgag	720
gggaccgtgt	gctgctgtga	ccacctgacc	ttttcgccc	tgctcctgag	accacaccc	780
gaccagtcca	cggtgcatat	cctcacacgc	atctcccagg	cgggctgtgg	ggtctccatg	840
atcttcctgg	ctttaccat	tatttttat	gccttctga	ggctttcccg	ggagaggttc	900
aagtcaaga	atgccccaaa	gatccacgt	gccctgggtg	gcagcctgtt	cctcctgaat	960
ctggccttct	tggtaatgt	ggggagtggc	tcaaagggtt	ctgatgctgc	ctgctgggc	1020
cggggggctg	tcttccacta	cttcctgctc	tgtccttca	cctggatgg	ccttgaagcc	1080
ttccacctct	acctgctcgc	tgtcagggtc	ttcaacacct	acttcggca	ctacttcctc	1140
aagctgagcc	tggtgggctg	ggccctgccc	gccctgatgg	tcatcggcac	tgggagtgc	1200
aacagctacg	gcctctacac	catccgtat	aggagaacc	gcacctctt	ggagctatgc	1260
tggttccgtg	aaggacaac	catgtacgcc	ctctatata	ccgtccacgg	ctacttcctc	1320
atcaccttcc	tcttggcat	ggtggctctg	gccctgggtg	tctggaagat	cttcaccc	1380
tcccgtgcta	cagcggtcaa	ggagcgggg	aagaaccgga	agaaggtgct	caccctgctg	1440
ggcctctcga	gcctgggtgg	tgtgacatgg	gggttggcca	tcttcacccc	gttgggc	1500
tccaccgtct	acatcttgc	actttcaac	tccttgc	gtgtcttcat	ctgctgctgg	1560
ttcaccatcc	tttacctccc	aagtcagac	accacagtct	cctcctctac	tgcaagattg	1620
gaccaggccc	actccgcac	tcaagaatag				1650

<210> 44

<211> 549

<212> PRT

<213> Homo sapiens

<400> 44

Met	Ala	Thr	Pro	Arg	Gly	Leu	Gly	Ala	Leu	Leu	Leu	Leu	Leu	Leu	
1			5					10				15			
Pro	Thr	Ser	Gly	Gln	Glu	Lys	Pro	Thr	Glu	Gly	Pro	Arg	Asn	Thr	Cys
				20				25				30			

Leu Gly Ser Asn Asn Met Tyr Asp Ile Phe Asn Leu Asn Asp Lys Ala
 35 40 45
 Leu Cys Phe Thr Lys Cys Arg Gln Ser Gly Ser Asp Ser Cys Asn Val
 50 55 60
 Glu Asn Leu Gln Arg Tyr Trp Leu Asn Tyr Glu Ala His Leu Met Lys
 65 70 75 80
 Glu Gly Leu Thr Gln Lys Val Asn Thr Pro Phe Leu Lys Ala Leu Val
 85 90 95
 Gln Asn Leu Ser Thr Asn Thr Ala Glu Asp Phe Tyr Phe Ser Leu Glu
 100 105 110
 Pro Ser Gln Val Pro Arg Gln Val Met Lys Asp Glu Asp Lys Pro Pro
 115 120 125
 Asp Arg Val Arg Leu Pro Lys Ser Leu Phe Arg Ser Leu Pro Gly Asn
 130 135 140
 Arg Ser Val Val Arg Leu Ala Val Thr Ile Leu Asp Ile Gly Pro Gly
 145 150 155 160
 Thr Leu Phe Lys Gly Pro Arg Leu Gly Leu Gly Asp Gly Ser Gly Val
 165 170 175
 Leu Asn Asn Arg Leu Val Gly Leu Ser Val Gly Gln Met His Val Thr
 180 185 190
 Lys Leu Ala Glu Pro Leu Glu Ile Val Phe Ser His Gln Arg Pro Pro
 195 200 205
 Pro Asn Met Thr Leu Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr
 210 215 220
 Thr Gly Asp Trp Ser Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu
 225 230 235 240
 Gly Thr Val Cys Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu
 245 250 255
 Arg Pro Thr Leu Asp Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser
 260 265 270
 Gln Ala Gly Cys Gly Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile
 275 280 285
 Leu Tyr Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp
 290 295 300
 Ala Pro Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn
 305 310 315 320
 Leu Ala Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala
 325 330 335
 Ala Cys Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala
 340 345 350
 Phe Thr Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val
 355 360 365
 Arg Val Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu
 370 375 380
 Val Gly Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala
 385 390 395 400
 Asn Ser Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser
 405 410 415
 Leu Glu Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr
 420 425 430
 Ile Thr Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val
 435 440 445
 Val Leu Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr
 450 455 460
 Ala Val Lys Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu
 465 470 475 480

Gly Leu Ser Ser Leu Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr
 485 490 495
 Pro Leu Gly Leu Ser Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu
 500 505 510
 Gln Gly Val Phe Ile Cys Cys Trp Phe Thr Ile Leu Tyr Leu Pro Ser
 515 520 525
 Gln Ser Thr Thr Val Ser Ser Ser Thr Ala Arg Leu Asp Gln Ala His
 530 535 540
 Ser Ala Ser Gln Glu
 545

<210> 45
 <211> 1020
 <212> DNA
 <213> Homo sapiens

<400> 45
 atgaccctca cctgtgtatt ctggatgtg actaaaggga ccactggaga ctggcttct 60
 gagggctgct ccacggaggt cagacctgag gggaccgtgt gctgctgtga ccacctgacc 120
 ttttcgccc tgctcctgag acccacctg gaccagtcca cggcataat cttcacacgc 180
 atctcccagg cgggctgtgg ggtctccatg atcttcctgg cttcaccat tattctttat 240
 gcctttctga ggcttcccg ggagaggttc aagtcaagaag atgccccaaa gatccacgtg 300
 gcccgggtg gcagcctgtt cctcctgaat ctggccttct tggtaatgt ggggagtgcc 360
 tcaaagggtt ctgatgctgc ctgctggcc cgggggctg tcttccacta cttcctgctc 420
 tggccttca cctggatggg cttgaagcc ttccacctct acctgctcgc tggcagggtc 480
 ttcaacaccc acttcgggca ctacttcctg aagctgagcc tggtggctg gggcctgccc 540
 gcccgtatgg tcacccggc ac tggagtgcc aacagctacg gcctctacac catccgtat 600
 agggagaacc gcacccctct ggagctatgc tggccgtg aaggacaac catgtacgccc 660
 ctctatatac cctggccacgg ctacttcctc atcaccccttcc tcttggcat ggtggccctg 720
 gcccgggtgg tctggaaat cttcaccctg tccctgtcta cagcggtaa ggagcgggggg 780
 aagaaccgga agaaggtgtt caccctgtg ggccctctcg gcctgggtgg tggacatgg 840
 ggggtggcca tcttccccc gttggccctc tccaccgtt acatcttgc actttcaac 900
 tccttgcag gtgtttcat ctgctgtgg ttccacatcc ttacccccc aagtcagagc 960
 accacagttt cctcccttac tgcaagattt gaccaggccc actccgcattc tcaagaatag 1020

<210> 46
 <211> 339
 <212> PRT
 <213> Homo sapiens

<400> 46
 Met Thr Leu Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr Thr Gly
 1 5 10 15
 Asp Trp Ser Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu Gly Thr
 20 25 30
 Val Cys Cys Cys Asp His Leu Thr Phe Phe Ala Leu Leu Leu Arg Pro
 35 40 45
 Thr Leu Asp Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala
 50 55 60
 Gly Cys Gly Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr
 65 70 75 80
 Ala Phe Leu Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro
 85 90 95
 Lys Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala
 100 105 110
 Phe Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys

115	120	125
Trp Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr		
130	135	140
Trp Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val		
145	150	155
Phe Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly		
165	170	175
Trp Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser		
180	185	190
Tyr Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu		
195	200	205
Leu Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr		
210	215	220
Val His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu		
225	230	235
Ala Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val		
245	250	255
Lys Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu		
260	265	270
Ser Ser Leu Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr Pro Leu		
275	280	285
Gly Leu Ser Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu Gln Gly		
290	295	300
Val Phe Ile Cys Cys Trp Phe Thr Ile Leu Tyr Leu Pro Ser Gln Ser		
305	310	315
Thr Thr Val Ser Ser Thr Ala Arg Leu Asp Gln Ala His Ser Ala		
325	330	335
Ser Gln Glu		

<210> 47
 <211> 1203
 <212> DNA
 <213> Homo sapiens

<400> 47

atggccctt ctgcagcctg gcctcccgta tctcccttt cacagggccc ccggctcgcc	60
ctgggagatg gcagcggcgt gttgaacaat cgcctggtag gtttgagtgt gggacaaatg	120
catgtcacca agctggctga gcctctggag atcgtcttct ctcaccagcg accgccccct	180
aacatgaccc tcaccgtgtt attctggat gtgactaaag ggaccactgg agactggct	240
tctgagggct gctccacgga ggtcagacct gaggggaccg tggctgtctg tgaccacctg	300
acctttttcg ccctgctcct gagacccacc ttggaccagt ccacggtgca tattcctcaca	360
cgcacatctccc aggccggctg tgggtctcc atgatcttcc tggccttcac cattattctt	420
tatgccttcc tgaggcttcc cggggagagg ttcaagtcag aagatcccc aaagatccac	480
gtggccctgg gtggcagcct gttcctcctg aatctggct tcttggtaa tgggggaggt	540
ggctcaaagg ggtctgatgc tgcctgctgg gccccggggg ctgtcttcca ctacttcctg	600
ctctgtgcct tcacccgtat gggccttgaa gccttccacc tctacctgct cgctgtcagg	660
gtcttcaaca cctacttcgg gcactacttc ctgaagctga gcctgggtgg ctggggcctg	720
cccgccctga tggtcatcgg cactgggagt gccaacagct acggcctcta caccatccgt	780
gatagggaga accgcaccc tcctggagcta tgctggttcc gtgaaggac aaccatgtac	840
gccctctata tcaccgttcca cggctacttc ctcacccatc tcccttttgg catgggtggc	900
ctggccctgg tggctgtggaa gatcttcacc ctgtcccggt ctacagcggt caaggagcgg	960
ggaaagaacc ggaagaaggt gtcacccctg ctggccctct cgagcctgggt ggggtgtgaca	1020
tgggggttgg ccatcttcac cccgttggc ctctccaccg tctacatctt tgcacttttc	1080
aactccttgc aaggtgtctt catctgctgc tggttcacca tcctttacct cccaaagtca	1140
agcaccacag tctccctcctc tactgcaaga ttggaccagg cccactccgc atctcaagaa	1200

<210> 48

<211> 400

<212> PRT

<213> Homo sapiens

<400> 48

Met Ala Pro Ser Ala Ala Trp Pro Pro Arg Ser Pro Leu Ser Gln Gly
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Val Gly Leu Ser Val Gly Gln Met His Val Thr Lys Leu Ala Glu Pro
35 40 45
Leu Glu Ile Val Phe Ser His Gln Arg Pro Pro Asn Met Thr Leu
50 55 60
Thr Cys Val Phe Trp Asp Val Thr Lys Gly Thr Thr Gly Asp Trp Ser
65 70 75 80
Ser Glu Gly Cys Ser Thr Glu Val Arg Pro Glu Gly Thr Val Cys Cys
85 90 95
Cys Asp His Leu Thr Phe Phe Ala Leu Leu Arg Pro Thr Leu Asp
100 105 110
Gln Ser Thr Val His Ile Leu Thr Arg Ile Ser Gln Ala Gly Cys Gly
115 120 125
Val Ser Met Ile Phe Leu Ala Phe Thr Ile Ile Leu Tyr Ala Phe Leu
130 135 140
Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys Ile His
145 150 155 160
Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe Leu Val
165 170 175
Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp Ala Arg
180 185 190
Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp Met Gly
195 200 205
Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe Asn Thr
210 215 220
Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp Gly Leu
225 230 235 240
Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr Gly Leu
245 250 255
Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu Cys Trp
260 265 270
Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly
275 280 285
Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala Leu Val
290 295 300
Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg
305 310 315 320
Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu Ser Ser Leu
325 330 335
Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr Pro Leu Gly Leu Ser
340 345 350
Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu Gln Gly Val Phe Ile
355 360 365
Cys Cys Trp Phe Thr Ile Leu Tyr Leu Pro Ser Gln Ser Thr Thr Val
370 375 380

Ser Ser Ser Thr Ala Arg Leu Asp Gln Ala His Ser Ala Ser Gln Glu
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<210> 49

<211> 825

<212> DNA

<213> Homo sapiens

<400> 49

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ctgttcctcc tgaatctggc cttcttggc aatgtggga gtggctcaa ggggtctgat 180
gctgcctgct gggcccgggg ggctgtctc cactacttcc tgctctgtgc cttcacctgg 240
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ggcactggga gtgccaacag ctacggcctc tacaccatcc gtgatagggaa gaaccgcacc 420
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cacggctact tcctcatcac ctccctctt ggcattgtgg tcctggccct ggtggtctgg 540
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gtgctcaccc tgctgggcct ctcgagcctg gtgggtgtga catgggggtt ggccatcttc 660
accccgttgg gcctctccac cgtctacatc ttgcacttt tcaactcctt gcaagggtgtc 720
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<210> 50

<211> 274

<212> PRT

<213> Homo sapiens

<400> 50

Met Gly Ala Pro His Gly Ser Cys Gly Pro Leu Gly Pro Leu Ile Ser
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His Pro Arg Leu Ser Arg Glu Arg Phe Lys Ser Glu Asp Ala Pro Lys
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Ile His Val Ala Leu Gly Gly Ser Leu Phe Leu Leu Asn Leu Ala Phe
35 40 45
Leu Val Asn Val Gly Ser Gly Ser Lys Gly Ser Asp Ala Ala Cys Trp
50 55 60
Ala Arg Gly Ala Val Phe His Tyr Phe Leu Leu Cys Ala Phe Thr Trp
65 70 75 80
Met Gly Leu Glu Ala Phe His Leu Tyr Leu Leu Ala Val Arg Val Phe
85 90 95
Asn Thr Tyr Phe Gly His Tyr Phe Leu Lys Leu Ser Leu Val Gly Trp
100 105 110
Gly Leu Pro Ala Leu Met Val Ile Gly Thr Gly Ser Ala Asn Ser Tyr
115 120 125
Gly Leu Tyr Thr Ile Arg Asp Arg Glu Asn Arg Thr Ser Leu Glu Leu
130 135 140
Cys Trp Phe Arg Glu Gly Thr Thr Met Tyr Ala Leu Tyr Ile Thr Val
145 150 155 160
His Gly Tyr Phe Leu Ile Thr Phe Leu Phe Gly Met Val Val Leu Ala
165 170 175
Leu Val Val Trp Lys Ile Phe Thr Leu Ser Arg Ala Thr Ala Val Lys
180 185 190
Glu Arg Gly Lys Asn Arg Lys Lys Val Leu Thr Leu Leu Gly Leu Ser
195 200 205

Ser Leu Val Gly Val Thr Trp Gly Leu Ala Ile Phe Thr Pro Leu Gly
 210 215 220
 Leu Ser Thr Val Tyr Ile Phe Ala Leu Phe Asn Ser Leu Gln Gly Val
 225 230 235 240
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 Thr Val Ser Ser Ser Thr Ala Arg Leu Asp Gln Ala His Ser Ala Ser
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 Gln Glu

<210> 51
 <211> 612
 <212> DNA
 <213> Homo sapiens

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<210> 52
 <211> 203
 <212> PRT
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<400> 52
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 35 40 45
 Gln Pro Gly Asp Phe Leu Gly Leu Leu Ala Arg Gly Thr Thr Pro Ser
 50 55 60
 Pro Thr Thr Ala Ala Pro Ser Ser Arg Cys Trp Phe Arg Glu Gly Thr
 65 70 75 80
 Thr Met Tyr Ala Leu Tyr Ile Thr Val His Gly Tyr Phe Leu Ile Thr
 85 90 95
 Phe Leu Phe Gly Met Val Val Leu Ala Leu Val Val Trp Lys Ile Phe
 100 105 110
 Thr Leu Ser Arg Ala Thr Ala Val Lys Glu Arg Gly Lys Asn Arg Lys
 115 120 125
 Lys Val Leu Thr Leu Leu Gly Leu Ser Ser Leu Val Gly Val Thr Trp
 130 135 140
 Gly Leu Ala Ile Phe Thr Pro Leu Gly Leu Ser Thr Val Tyr Ile Phe
 145 150 155 160
 Ala Leu Phe Asn Ser Leu Gln Gly Val Phe Ile Cys Cys Trp Phe Thr

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Ile Leu Tyr Leu Pro Ser Gln Ser Thr Thr Val Ser Ser Ser Thr Ala		
180	185	190
Arg Leu Asp Gln Ala His Ser Ala Ser Gln Glu		
195	200	

<210> 53

<211> 4036

<212> DNA

<213> Homo sapiens

<400> 53

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